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ABSTRACT

Student tracking systems are enabling increasing numbers of community colleges to respond to external demands for accountability with tangible measurements of student progress and institutional outcomes. Several recent trends in marketing, accountability, communications with students, and internal competition for resources have prompted interest in monitoring student progress. Six stages in the student flow process should be monitored: awareness of the college, first inquiry about the school, formal entry, the college experience, completion, and followup. Tracking systems can be developed for any one of these stages, but a number of decisions must first be made in order to collect, store, and disseminate the information that the college and its staff need. In addition to decisions about the purposes and organization of the tracking system, the designers must identify from the data elements routinely collected on each student those that are relevant to student persistence and outcomes. The American Association of Community and Junior Colleges has developed a student tracking model that identifies variables related to student characteristics, progress, and followup. While tracking systems offer many benefits, the potential for problems exists with respect to data collection, the institution's research capacity, follow-up information, and effective use of the information. Regardless of these difficulties, tracking is destined to become an integral part of community college management. (JMC)

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DIGEST

Clearinghouse for Junior Colleges

September 1989 *EDO-JC-89-03*

Student Tracking Systems in Community Colleges

Grace Quimbita

Student tracking systems enable increasing numbers of community colleges to respond to external demands for accountability with tangible measurements of student progress and institutional outcomes. Several recent trends have prompted interest in monitoring student progress throughout college and into their professional lives. Bers (1989) highlights the following:

o Marketing. Colleges have become more concerned with attracting and retaining students. The ability to identify and maintain contact with individuals who have expressed interest in attending a college is vital to recruitment efforts. Identifying and providing support to students who are experiencing academic or personal difficulties is an important part of student retention efforts. Resource development is also facilitated by the ability to maintain contacts with alumni.

o Accountability. Legislators, state governing boards, governors, trustees, and employers are all demanding evidence of institutional and program effectiveness and educational results.

o Communication with Students. A tracking system can provide students with accurate, up-to-date information on their status at an institution, skill levels, transferability of courses, and progress toward a degree.

o Internal Competition for Resources. To compete for limited resources, programs and services must be able to prove their value to students. A tracking system that monitors student progress through remedial coursework and on to college-level courses can help demonstrate the effectiveness of the remedial program.

Monitoring Student Flow

Bers identifies six stages in the student flow process that should be monitored by a student tracking system.

The Awareness Stage. In this stage, the prospective student learns about the college for the first time. While the college cannot identify this individual by name, effective recruitment requires that a steady stream of information about the college reach him or her. Mass mailings to homes or businesses, advertisements in the media, and public information sessions are useful in making potential students aware of the college.

The Inquiry Stage. Mechanisms for maintaining more personalized contact with prospective students should go into effect as soon as the individual makes the first inquiry about the college. The individual's name, social security number, and interest in programs and services should now be on record.

The Entry Stage. This stage involves formal application, admission, first-time registration and enrollment, and increasingly, assessment tests, orientations, and advisement. From data gathered at this point, calculations of the percentage of admitted students who actually enroll can be made.

The Experience Stage. Most tracking efforts currently concentrate on this stage, gathering information on students as they take courses, fulfill prerequisites, pass, fail, or withdraw from courses, take advantage of support services, and work toward their goals.

The Completion Stage. At this stage, students leave the college with or without achieving their educational goals.

The Follow-Up Stage. Because community college students commonly stop in and out, alumni can also be considered an important pool of prospective students. Maintaining contact with alumni after they have left the college is important in evaluating educational outcomes in terms of employment or transfer experiences, and attracting former students back to the college.

Tracking systems can be developed for practically any stage in the student flow process. Cochise College in Arizona boasts a tracking system within its admissions office that monitors the awareness, inquiry and entry stages (Barrett, 1989). The Los Angeles Community College District in California and Arapahoe Community College in Colorado each have tracking systems which focus on basic skills assessment and monitor the entry, experience, and completion stages (Voorhees and Hart, 1989). Additionally, tracking designs are possible for underprepared students (Smittle, LaVallee, and Carman,

1989) and other special groups, such as displaced homemakers, single parents, learning disabled, and hearing impaired (Gay and Boukouvalas, 1989).

Designing Student Tracking Systems

A number of decisions must be made in order to develop a tracking system that collects the information needed by the college, stores it in a way that facilitates retrieval, and disseminates the information to the individuals that need it in the most useful format. Decisions must be made about the multiple purposes the system is to serve and the way the database is to be organized, analyzed, and used.

Moreover, from the seemingly endless array of data elements that are routinely collected on each student, the designers of the tracking system must select the relatively small number of variables that deal with student persistence and outcomes. The American Association of Community and Junior Colleges' Student Tracking Model identifies the following required variables (Palmer, 1989):

Student Characteristics

These data are typically collected at the entry stage, as part of the admissions and registration processes:

- Name
- Social Security Number (or other ID#)
- Date of birth
- Ethnic identification
- Address
- ESL status
- Last school or college attended
- Highest level of schooling attained
- Primary reason for attending this college at this time
- Degree goal at this institution
- Student major
- Reading, writing, and math placement scores

Student Progress

These data are verified or collected on a term-by-term basis throughout the experience stage:

- Regularly updated information on
  - Name, Address, Degree Goal, Reason for Attending, and Declared Major
- Number of college-level credits attempted
- Number of college-level credits completed
- Number of cumulative credits earned to date
- Grade point average for term
- Cumulative GPA
- Number of remedial credits attempted
- Number of remedial credits earned

Student Follow-Up

These data are collected after the student leaves the college:

- Student's perspective on whether his/her primary educational objective was attained
- Current employment status
- Relationship of job to college studies
- Salary
- Hours per week employed
- Current college enrollment
  - Current institution
  - New major
  - Number of credit hours lost in the transfer process
  - GPA at new institution

Additional data may be collected, such as, socioeconomic status, disabilities, or financial aid awarded. However, care must be taken to eliminate extraneous or unnecessary items. The costs of data entry and analysis, as well as the requirements of producing a manageable and usable database, dictate constraints on the number of data elements, and recognition that many outcomes will not be determined.

The minimum requirements for a computerized system to manage and analyze the data include the ability to extract and download data elements already available in college records; ease of modification and expansion; the ability to draw random samples for special analysis; and the preservation of student confidentiality (Bragg, 1989).

Challenges

Palmer (1989) advises community colleges of several potential difficulties in the establishment of student tracking systems.

Data Collection. Many institutional research offices will need to refocus their efforts from cross-sectional data to longitudinal data. Databases developed to fulfill state and federal reporting requirements will need to be expanded or modified to become functional within the student tracking program. This expansion can begin by gathering existing, but widely dispersed, longitudinal data from student applications, registration forms, transcripts, follow-up surveys and other sources.

Amount of Data. Many policy makers do not understand the relationship between the information desired and the effort needed to collect it. Unnecessary variables are included on questionnaires without recognition of the institution's research capacity or the costs of data entry, processing and analysis. Many community colleges have no established institutional research office; others have a very small staff, making them ill-equipped to take on the task of tracking.

Follow-Up Information. Obtaining information from students after they have left the college is much more difficult than obtaining information during their enrollment. Survey response rates of less than 50% of the sample of alumni are common and detract from the credibility of findings.

Use of Information. The involvement of the entire college, including administrators, faculty, staff and students, is necessary in the analysis and interpretation of data. Coffey and Palmer (1989, p.35) remark that "unless student goals, performance, and follow-up information can be linked back to the major or program in which the student is or was enrolled, community college faculty and program staff cannot use the tracking information to improve their particular programs or address specific problems."

Conclusion

Legislation and national educational reform efforts have spurred many community colleges to initiate or expand student tracking systems. However, obstacles exist at institutional and state levels that hamper their more widespread development and use. Regardless of these difficulties, proponents argue that the issue of student tracking systems is not a short-term fad, but is destined to become an integral component of community college management.

References

This digest draws heavily from articles appearing in Using Student Tracking Systems Effectively. New Directions for Community Colleges, Number 66, edited by Trudy H. Bers, and available from Jossey-Bass Inc., Publishers.

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